 <p>INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)</p>	Docket Number (Optional) 08228/019001		Application Number 10/044,686
	Applicant(s) : Shiro SAKAI et al.		
	Filing Date January 11, 2002	Group Art Unit 1765 1782	

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
F.H.	C1	11-145516	05/28/1999	Japan	H01L	33/00		✓
↑	C2	11-346032	12/14/1999	Japan	H01S	3/18		✓
↓	C3	11-346035	12/14/1999	Japan	H01S	3/18		✓
↓	C4	2000-91252	03/31/2000	Japan	H01L	21/205		✓
F.H.	C5	2000-91253	03/31/2000	Japan	H01L	21/205		✓

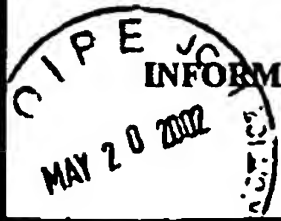
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

FiH.	C6	Patent Abstract of Japanese Patent No. JP11354839, published 12/24/1999, 1 page
FiH.	C7	Patent Abstract of Japanese Patent No. JP11354840, published 12/24/1999, 1 page

EXAMINER

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.





INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Docket Number (Optional)

08228/019001

Application Number

10/044,686

Applicant(s)

Shiro SAKAI et al.

Filing Date

January 11, 2002

Group Art Unit

1765 1782

EXAMINER
F.H.

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

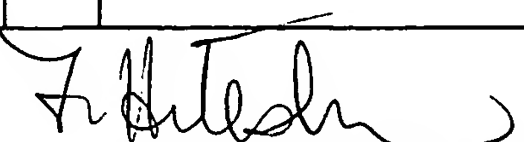
F.H.	F1	Patent Abstracts of Japan, Publication No. 11135832A, published 05/21/1999, 1 page
U	F2	Patent Abstracts of Japan, Publication No. 11145057A, published 05/28/1999, 1 page
	F3	Patent Abstracts of Japan, Publication No. 11145516A, published 05/28/1999, 1 page
	F4	Patent Abstracts of Japan, Publication No. 11346032A, published 12/14/1999, 1 page
	F5	Patent Abstracts of Japan, Publication No. 11346035A, published 12/14/1999, 1 page
	F6	Patent Abstracts of Japan, Publication No. 2000091252A, published 03/31/2000, 1 page
	F7	Patent Abstracts of Japan, Publication No. 2000091253A, published 03/31/2000, 1 page
	F8	Patent Abstracts of Japan, Publication No. 2000357820A, published 12/26/2000, 1 page
	F9	Patent Abstract of Japanese Patent No. JP4297023 corresponding to European Patent No. EP0497350, published 08/05/1992, 1 page
	F10	"InGaN/GaN/AlGaIn-based laser diodes with modulation-doped strained-layer superlattices grown on an epitaxially laterally overgrown GaN substrate", Shuji Nakamura et al. Appl. Phys. Lett. 72 (2), 12 January 1998 1998 American Institute of Physics, 3 pages
✓	F11	"Influence of sapphire nitridation on properties of gallium nitride grown by metalorganic chemical vapor deposition", S. Keller et al. Appl. Phys. Lett. 68 (11), 11 March 1996 1996 American Institute of Physics, 3 pages
F.H.	F12	"The effect of the Si/N treatment of a nitridated sapphire surface on the growth mode of GaN in low-pressure metalorganic vapor phase epitaxy", S. Haffouz et al. Applied Physics Letters, Volume 73, Number 9, 31 August 1998, 3 pages

EXAMINER

DATE CONSIDERED

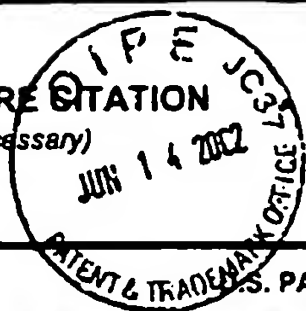
5/17/05

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

CIPE INFORMATION DISCLOSURE CITATION <i>(Use several sheets if necessary)</i>		Docket Number (Optional) 08228/019001	Application Number 10/044,686
		Applicant(s) Shiro SAKAI et al.	
		Filing Date January 11, 2002	Group Art Unit 1765/28
EXAMINER Initials	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
FH ↑ ↓ V	G1	"Growth of high-quality GaN by low-pressure metal-organic vapour phase epitaxy (LP-MOVPE) from 3D islands and lateral overgrowth", H. Lahrech et al. N.H Elsevier Journal of Crystal Growth 205 (1999) 245-252, 8 pages	
	G2	"Optimization of Si/N Treatment Time of Sapphire Surface and Its Effect on the MOVPE GaN Overlayers", S. Haffouz et al. phys. stat. sol. (a) 176, 677 (1999), 5 pages	
	G3	"Influence of in situ sapphire surface preparation and carrier gas on the growth mode of GaN in MOVPE" P. Vennegues et al. N.H. Elsevier Journal of Crystal Growth 187 (1998) 167-177, 11 pages	
	G4	"Fabrication and Characterization of Low Defect Density GaN Using Facet Controlled Epitaxial Lateral Overgrowth (FACELO)" K. Hiramatsu et al. The Tenth International Conference on Metalorganic Vapor Phase Epitaxy June 5-9, 2000 Hokkaido University Conference Hall, Sapporo, Japan (pages 289-300) (5 pages)	
	G5	"Preparation of conductive ZnO:Al films by a facing target system with a strong magnetic field" Kikuo Tominaga et al. Thin Solid Films 253 (1994) pages 9-13 Elsevier Science S.A. (5 pages)	
	G6	"p-Type Electrical Conduction in ZnO Thin Films by Ga and N Codoping" Matthew Joseph et al. Japanese Journal of Applied Physics, Vol. 38 (1999), pages L1205-L1207 (3 pages)	
EXAMINER		DATE CONSIDERED	
		5/17/05	
*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.			

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)



ATTY DOCKET NO.
08228/019001

SERIAL NO.
10/044,686

Shiro SAKAI et al.

FILING
January 11, 2002

GROUP
1765 1700

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
F.H.	A1	5,332,697	07/26/1994	Smith et al.	437	242	10/16/1991
F.H.	A2	6,090,666	07/18/2000	Ueda et al.	438	257	09/30/1998

COPY OF PAPERS
ORIGINALLY FILED

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
F.H.	A3	EP 0 942 459 A1	09/15/1999	Europe				
F.H.	A4	EP 0 779 666 A2	06/18/1997	Europe				
F.H.	A5	11-111867	04/23/1999	Japan				✓

RECEIVED
JUN 18 2002
TC 1700

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

F.H.	A6	Patent Abstracts of Japan, Publication No. 11111867, Publication Date 04/23/1999, 1 page
F.H.	A7	"Drastic Reduction of the Dislocation Density in GaN Films by Anti-Surfactant-Mediated Dot Formation"; M. TAKEUCHI et al., Workbook, The Tenth International Conference on Metalorganic Vapor Phase Epitaxy, June 5-9, 2000, Hokkaido University Conference Hall, Sapporo, Japan, 3 pages

EXAMINER

[Signature]

DATE CONSIDERED

5/17/05

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: left;"> <p>01 P.E.</p> <p>INFORMATION DISCLOSURE CITATION</p> <p>(Use several sheets if necessary)</p> <p>FEB 06 2003</p> </div> <div style="text-align: right;"> <p>U.S. PATENT & TRADEMARK OFFICE</p> </div> </div>				Docket Number (Optional)		Application Number	
				08228-019001		10/044,686	
				Applicant(s)			
Shiro SAKAI et al.				1765 1728			
Filing Date				01/11/2002			

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
FH	A1	3,909,929	10/07/1975	Debesis	29	590	
FH	A2	5,786,233	07/28/1998	Taskar et al.	438	46	
FH	A3	6,242,328	06/05/2001	Shin	438	518	

FOREIGN PATENT DOCUMENTS								
	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
FH	B1	EP 0 180 222 A2	05/07/1986	EPO	H01L	31/18		
	B2	EP 0 180 222 A3	05/07/1986	EPO	H01L	21/308		
	B3	EP 0 723 303 A2	07/24/1996	EPO	H01L	33/00		
	B4	EP 0 723 303 A3	05/28/1997	EPO	H01L	33/00		
FH	B5	EP 0 731 490 A2	09/11/1996	EPO	H01L	21/033		

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
FH	C1	Patent Abstracts of Japan, Publication No. 07097300, Publication Date 04/11/1995, 1 page
FH	C2	Patent Abstracts of Japan, Publication No. 10178213, Publication Date 06/30/1998, 1 page

EXAMINER	DATE CONSIDERED
[Signature]	5/17/05

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

(Use several sheets if necessary)

Docket Number (Optional)

08228-019001

Application Number

10/044,686

Applicant(s)

Shiro SAKAI et al.

Filing Date

01/11/2002

Group Art Unit

1765-1778

U.S. PATENT DOCUMENTS

[illegible]

RECEIVED
FEB 11 2005
TC 1700

FOREIGN PATENT DOCUMENTS

[illegible]

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

F217	C7	European Search Report dated 11/11/2002, 4 pages
F211	C8	European Search Report dated 01/08/2003, 3 pages

EXAMINER

^R *Fritsch*

DATE CONSIDERED.

5717105

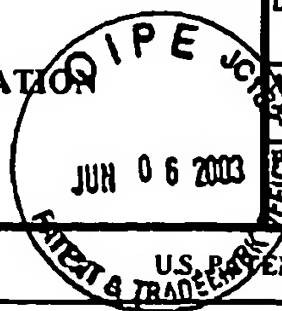
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION <small>(Use several sheets if necessary)</small>				Docket Number (Optional) 08228.019001		Application Number 10/044,686	
				Applicant(s) Shiro SAKAI, et al.			
				Filing Date 01/11/2002		Group Art Unit 1702	

RECEIVED
APR 16 2002
T.C. 1700

U.S. PATENT DOCUMENTS								
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE <small>(IF APPLICABLE)</small>	
F.H.	A1	4,985,113	01/15/1991	Fujimoto et al.	156	643	03/07/1990	
	A2	5,874,747	02/23/1999	Redwing et al.	257	77	02/05/1996	
	A3	6,103,604	08/15/2000	Bruno et al.	438	584	02/10/1997	
	A4	6,172,382 B1	01/09/2001	Nagahama et al.	257	94	01/09/1998	
	A5	6,191,436 B1	02/20/2001	Shibata et al.	257	91	03/12/1996	
	A6	6,355,945 B1	03/12/2002	Kadota et al.	257	82	06/24/1999	
	A7	6,429,102 B1	08/06/2002	Tsai et al.	438	508	02/03/2000	
	A8	6,455,337 B1	09/24/2002	Sverdlov	438	22	06/27/2001	
	A9	6,465,808 B2	10/15/2002	Lin	257	81	01/11/2001	
	A10	2002/0036286 A1	03/28/2002	Ho et al.	257	11	05/15/2000	
	A11	2002/0042159 A1	04/11/2002	Chiyo et al.	438	46	10/10/2001	
FOREIGN PATENT DOCUMENTS								
	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
F.H.	A12	JP407263408A	10/13/1995	Japan	H01L	021/3065	✓	
F.H.	A13	WO98/42030	09/24/1998	PCT	H01L	33/00		✓
F.H.	A14	WO98/44569	10/08/1998	PCT	H01L	33/00		✓
OTHER DOCUMENTS <small>(Including Author, Title, Date, Pertinent Pages, Etc.)</small>								
F.H.	A15	European Search Report dated 11/27/2003 (4 pages)						
EXAMINER <i>H. H. Tesh</i>				DATE CONSIDERED <i>5/17/05</i>				
<small>EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small>								

INFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)



Docket Number (Optional) 08228/019001	Application Number 10/044,686
Applicant(s) Shiro SAKAI et al.	
Filing Date 01/11/2002	Group Art Unit 1765 1700

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

RECEIVED
JUN 11 2003
GROUP 1700

FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
<i>F.A.</i>	A1	4-288871	08/03/1993	Japan	HO1L	21/469		✓
<i>F.A.</i>	A2	9-17975	01/17/1997	Japan	HO1L	27/108		✓
<i>F.A.</i>	A3	10-163525	06/19/1998	Japan	HO1L	33/00		✓
<i>F.A.</i>	A4	EP 0 961 328 A2	12/01/1999	Europe	HO1L	33/00		

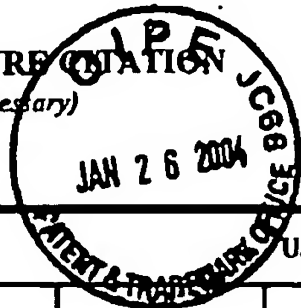
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>F.A.</i>	A5	Japanese Patent Application Serial No. 091100294 Office Action dated March 14, 2003
<i>F.A.</i>	A6	Japanese Patent Application Serial No. 2000-289103 Office Action dated April 22, 2003

EXAMINER <i>F.A.</i>	DATE CONSIDERED <i>5/17/05</i>
-------------------------	-----------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

INFORMATION DISCLOSURE CITATION
(Use several sheets if necessary)



Docket Number (Optional) 08228.019001	Application Number 10/044,686
Applicant(s) Shiro SAKAI, et al.	
Filing Date 01/11/2002	Group Art Unit 1765 / 1702

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
FH	A1	2003/0178634 A1	09/25/2003	Koide	H01L	33/00	03/20/2003

RECEIVED
FEB 05 2004
TC 1700

FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER T. Hulse	DATE CONSIDERED 5/17/05
-----------------------------	-----------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.